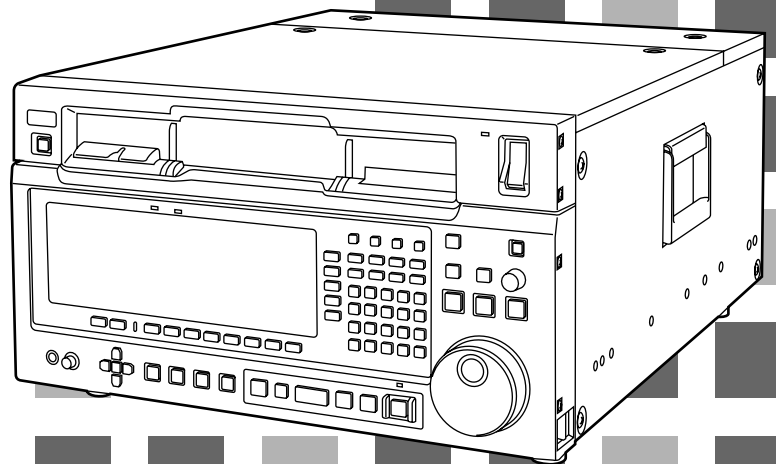# Panasonic

HD D5
½" DIGITAL

Digital Video Cassette Recorder

AJ-**HD3700H** P E

Operating Instructions
(Supplement 1)

Outline of changes and additions

This supplement describes what changes and additions have been made to the operating instructions of the AJ-HD3700H digital video cassette recorder.

New changes and additions

Item concerned	Change/addition	Page in AJ-HD3700H's operating instructions	Page in this supplement
Recording	System frequency added	Hardware section, page 25	3, 4
HOME	System frequency added	Software section, page 8	5
VIDEO IN	Internal signal generator (INT-SG) synchronization	Software section, pages 22, 23	6, 7
TC/CHR	TC conversion function	Software section, pages 70 to 73	8 to 11
TC/CHR CONVERT	Menu changed	Software section, page 80	12, 13
SYSTEM SET UP	True-P (Non-PsF) signal interface added	Software section, pages 130 to 132 and 135	14 to 17
TEST IC CARD	Date and time registration method	Software section, page 156	18, 19
TEST IC CARD ERROR LOG	F7 (REAL TIME) key added	Software section, page 161	20

Recording

This flowchart shows the steps for recording the digital signals which are supplied to the unit from an external digital device.

1. Check the connections.

2. Turn on the power.

3. After making sure that no cassette tape is inserted in this unit, set the system frequency 59.94, 23.98, 24, 25 or 50 by F1 (FREQ) key of the SYSTEM SET UP menu.
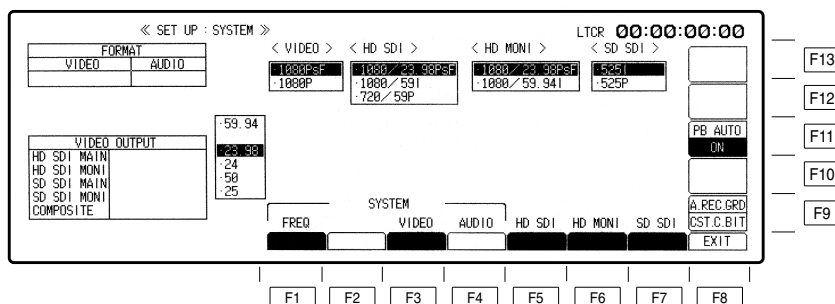
The frequency setting is possible when the two keys, F and F1 are pressed at the same time. Select the frequency by cursor key [▲, ▼] and press the BS and ENT keys at the same time, then the frequency is secured. In 59 Hz mode, the selection window will be further displayed (1080i/525i/720p). Select the format by the cursor key, and press the BS and ENT keys at the same time to secure the format. When the 1080i or 720p format has been selected, select its 4-channel or 8-channel audio version, and enter the format by pressing the BS and ENT keys at the same time.

In the 23.98 Hz, 24 Hz or 25 Hz mode, a window appears offering the user the option of selecting PsF or P for the VIDEO signal interface format. When the format is selected using the cursor keys [▲, ▼] and the BS key and ENT key are then pressed together, the format is entered. In the same way, the HD MAIN output and HD MONI output formats are selected using the cursor keys [▲, ▼] and then entered by pressing the BS key and ENT key together.

(The table below lists the possible combinations of the output signals of the video output connectors. These combinations are available only when the AJ-UDC3700P option has been installed.)

● **Output when a format converter has been installed**

System format	HDTV output		SDTV output		
	HD MAIN	HD MONI	SD SDI MAIN	SD SDI MONI	Analog composite
1080/59.94i[*1]	1080/59.94i	1080/59.94i	525/59.94i	525/59.94i	NTSC
720/59.94p	720/59.94p	720/59.94p	525/59.94i	525/59.94i	NTSC
	720/59.94p	720/59.94p	525/59.94p	525/59.94i	NTSC
1080/23.98p	1080/23.98PsF	1080/23.98PsF	525/59.94i	525/59.94i	NTSC
	1080/23.98PsF	1080/23.98PsF	525/59.94p	525/59.94i	NTSC
	1080/23.98PsF	1080/59.94i	——	——	——
	1080/23.98p	1080/23.98p	525/59.94i	525/59.94i	NTSC
	1080/59.94i	1080/59.94i	525/59.94i	525/59.94i	NTSC
	1080/59.94i	1080/59.94i	525/59.94p	525/59.94i	NTSC
	720/59.94p	720/59.94p	525/59.94i	525/59.94i	NTSC
	720/59.94p	720/59.94p	525/59.94p	525/59.94i	NTSC
1080/24.00p	1080/24PsF	1080/24PsF	——	——	——
	1080/24PsF	1080/60i	——	——	——
	1080/24p	1080/24p	——	——	——
	1080/60i	1080/60i	——	——	——
	720/60p	720/60p	——	——	——
1080/25p, PsF	1080/25PsF	1080/25PsF	625/50i	625/50i	PAL
	1080/25p	1080/25p	625/50i	625/50i	PAL
1080/50i[*2]	1080/50i	1080/50i	625/50i	625/50i	PAL
480/59.94i	1080/59.94i	1080/59.94i	525/59.94i	525/59.94i	NTSC

How to display the menus: ● SYSTEM SET UP menu:

SET UP → F4

[*1] **The 1035/59.94i format signals cannot be recorded on this VTR but a tape recorded using the AJ-HD2000 or other model can be played back.**

[*2] **1080/23.98p 1080/25p and 1080/24p format tapes can be played back and 1080/50i format signals can be output automatically.**

Recording

- The REF synchronization specifications applying when the 1080/23p, 24p or 25p True-P (Non-PsF) system format is selected are the same specifications as for the PsF system format. Use an interlace format signal for the HD tri-level SYNC signal.
- The True-P (Non-PsF) input/output interface does not support EMBEDDED AUDIO/TC/VANC.
- The enhance and filter response picture quality adjustments do not work for True-P (Non-PsF) outputs.
- Other signals cannot be superimposed onto HD monitor outputs using True-P signals.
- When PsF signals have been recorded using a PsF system format and they are subsequently played back using a True-P system format, the PsF signals are converted into True-P signals. Conversely, when True-P signals have been recorded using a True-P system format and they are subsequently played back using a PsF system format, the True-P signals are converted into PsF signals.
- Bear in mind that when recording 1080/50i signals using the 1080/25PsF system format, the signals will be recorded but the images will be blurred.

HOME menu displays

☐ Audio signal display area (Either 8 or 4 channels will be automatically displayed depending on the format used.)
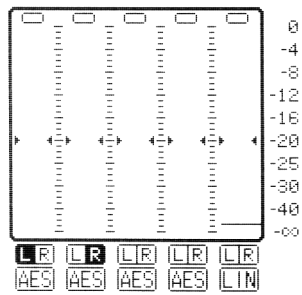
Use this to adjust the level of the input audio signals on the AUDIO IN menu. Alternatively, it is used to adjust the level of the audio playback output signals on the AUDIO OUT menu.

Press the L/R buttons to select the audio channel whose signals are to be output from the AUDIO MONITOR L/R connectors and HEADPHONES jack.

These display the type of input signals of each channel.
The F1 (CH-1) to F6 (DIGITAL) [or F1 (CH-1) to F13 (CH-8) for 8 channels] on the AUDIO IN PCM INPUT SELECT menu are selected using the F9 (CH-MIX) key on the AUDIO IN CUE INPUT SELECT menu.

ANA:	Signals from the ANALOG INPUT connectors.
CH1 AES:	Signals from the DIGITAL AUDIO INPUT connectors.
≀	
CH1 SER:	Signals from the serial V/A input connectors.
INT:	Signals from the internal signal generator.
LINE:	Signals from the CUE IN connector.
CUE MIX:	CH1 to CH8 signals selected by CUE MIX setting.
AUTO:	This is always used for digital channel backup purposes.

☐ Display lamps

SYSTEM: This indicates the video system format which was set on the SETUP/SYSTEM menu.
1080_59i, 525_59i, 1080_23psf, 1080_23p, 1080_24psf, 1080_24p, 720_59p, 1080_50i, 1080_25p

TAPE: This indicates the format of the playback tape.
"✳✳✳✳✳✳✳✳" appears in the EJECT mode.
If a section is unrecorded or if the format of a section cannot be identified, the lamp blinks while the display of the format identified up to the section concerned is retained.
1080_59i, 1080_60i, 1035_59i, 1035_60i, 525_59i, 1080_23p, 1080_24p, 720_59p, 720_60p, 1080_50i, 1080_25p

<Note>
A tape recorded with the system format set to 1080/23.98psf or 1080/23.98p is recorded in the same tape format, and "1080_23p" is displayed on the front panel when it is played back. Similarly, "1080_24p" appears on the front panel with a tape recorded using the 1080/24psf or 1080/24p system, and "1080_25p appears when a tape recorded using the 1080/25psf or 1080/25p system.

How to display the menus:

- AUDIO IN menu:
  AUDIO IN

- AUDIO OUT menu:
  AUDIO OUT

- AUDIO IN PCM INPUT SELECT menu:
  AUDIO IN → F6

- AUDIO IN CUE INPUT SELECT menu:
  AUDIO OUT → F7

VIDEO IN menu

This menu is displayed by pressing the following key: VIDEO IN

```
OUTPUT LEVEL        ≪ VIDEO IN ≫                          LTCR 00:00:00:00
                                  0                                    INPUT     F13
                                 -4                                    DIGITAL
                                 -8                              SD     INT SG    F12
                                 -12                                    100%CB
                                 -16
                                 -20                                              F11
                                 -25
                                 -30                                              F10
                                 -40
                                 -∞                                               F9
 LR LR LR LR LR LR LR LR              HD
 SER SER AES AES SER SER AES AES LIN   INPUT  INT SG              SG REF
 SYSTEM    TAPE     REF  VIN INPUT                                AUTO
1080_23PsF ******** HD_FREE DIG DIGITAL 100%CB
```

    F1   F2   F3   F4   F5   F6   F7   F8
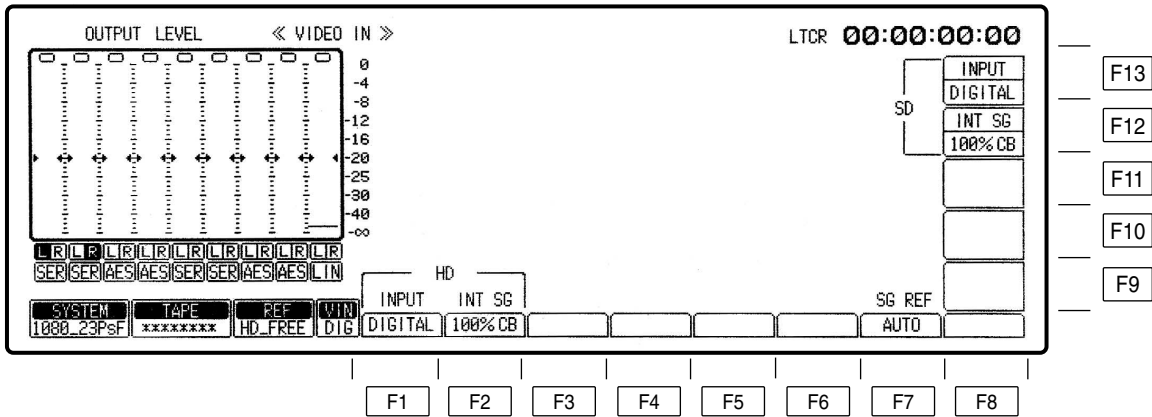
VIDEO IN menu

Key	Key designation	Description
F1	INPUT For selecting the HD video input signals.	**DIGITAL:** Selects the serial input signals. **INT SG:** Selects the internal signals.
F2	INT SG For selecting the type of HD internal signals.	**75% CB:** Selects the 75% color bar signal. **100% CB:** Selects the 100% color bar signal. **RAMP:** Selects the RAMP signal. **MULT-BST:** Selects the multi-burst signal. **BLACK:** Selects the black-burst signal. **SIF PLL:** Selects the signals for checking the serial interface PLL. **SIF EQ:** Selects the signal for checking the serial interface equalizer. **SMPTE CB**[*1]**:** Selects the SMPTE color bar signal.
F3–F6	——	
F7	SG REF For synchronizing the INT SG	**AUTO:** When video input signals are present, the internal reference signal is locked to the input signals; when video input signals are not present, it is locked to the signal selected by the OUT REF setting[*2]. **OUTPUT:** The internal reference signal is locked to the signal selected by the OUT REF setting[*2].
F8–F11	——	
F12	INT SG For selecting the type of SD internal signals.	**75% CB:** Selects the 75% color bar signal. **100% CB:** Selects the 100% color bar signal. **RAMP:** Selects the RAMP signal. **MULT-BST:** Selects the multi-burst signal. **BLACK:** Selects the black-burst signal. **SIF PLL:** Selects the signals for checking the serial interface PLL. **SIF EQ:** Selects the signal for checking the serial interface equalizer. **SMPTE CB:** Selects the SMPTE color bar signal.
F13	INPUT For selecting the SD video input signals.	**DIGITAL:** Selects the serial input signals. **INT SG:** Selects the internal signals.

[*1]**When the 720/59p format has been selected, the SMPTE CB function does not function.**
[*2]**Refer to the HOME SET UP menu.**

TC/CHR menu

This menu is displayed by pressing the following key: TC/CHR

```
OUTPUT LEVEL        ≪ TC／CHR ≫        SUPER  POSITION          LTCR 00:00:00:00
                                                                              CHR TYPE    ─── F13
                                                                              REVERSE
                                                                              SUPER ER    ─── F12
                                                                                ON
                                                                              SUPER       ─── F11
                                                                              TC. ST.
                                                                              TCR         ─── F10
                                                          STILL                AUTO
                                                       −        +
                                                                              CONVERT     ─── F9
 LR  LR  LR  LR  LR  LR  LR  LR
 SER SER AES AES SER SER AES AES LIN                                          SET UP
 SYSTEM   TAPE    REF  WIN  SOURCE TC SLAVE UB SLAVE RUN MD
1080_23PsF ******** HD_FREE DIG   INT    AUTO    OFF   REC RUN
```

F1   F2   F3   F4   F5   F6   F7   F8

─ 8 ─

TC/CHR menu

Key	Key designation	Description
F1	SOURCE For selecting internal/external time code signal.	**INT:** Built-in time code generator. **EXT LTC:** LTC time code from TIME CODE input connector. **S LTC:** LTC time code added to serial signals; not displayed when the SD mode is selected. **S VTC:** VTC time code added to serial signals; not displayed when the SD mode is selected. **EXT VITC:** VITC time code added to video signals; not displayed when the HD mode is selected.
F2	TC SLAVE For setting up time code slave lock mode.	●When the F1 (SOURCE) key is at [INT], AUTO, PRESET and SALVE are displayed. **AUTO:** Generator locks at the value read out by the reader. In this case there is no time code setting. (Only during editing.) During normal recording, however, any setting of the generator can be performed. **PRESET:** Generator does not lock at the value read out by the reader. Generator can be set freely. **SLAVE:** The generator is locked to the reader's readout value. In this case, the time code cannot be set. - ●When the F1 (SOURCE) key is at [TEXT LTC], SALVE and DIRECT are displayed. **SLAVE:** Generator locks to external LTC time code. (When there is no external input, E-TC time data blinks.) **DIRECT:** External LTC time code is recorded as is. (When there is no external input, E-TC: ✳✳:✳✳: ✳✳:✳✳ are displayed.) - ●When the F1 key is at [S VITC], [S LTC] or [EXT VITC], this key is not displayed. In this case, the generator value typically locks to external VITC or LTC time code.
F3	UB SLAVE User bit lock.	**ON:** User bit locks to user bit value read by reader (TCR) or to external user bit value, and cannot be set. **OFF:** Generator does not lock to value read out by reader. User bit value can be set freely.
F4	RUN MD Time code progress.	**REC RUN:** Runs the TC only while recording is in progress. **FREE RUN:** Runs the TC all the time in the same way as a clock.
F5	DF MD* For selecting drop or non-drop frame.	Valid only when the F1 (SOURCE) key selects [INT]. **ON:** Drop frame mode is set. **OFF:** Non-drop frame mode is set. ●When [EXT LTC], [S VITC] or [S LTC] is selected in the F1 key, the VTR conforms to drop/non-drop frame mode of external time code.

***This is not displayed when the 1080/23psf, 1080/23p, 1080/24psf, 1080/24p, 1080/25psf, 1080/25p or 1080/50i system format has been selected.**

TC/CHR menu

Key	Key designation	Description
F6	CF BIT*¹ For selecting the color frame bit ON/OFF during recording.	**ON:** CF BIT is recoorded. **OFF:** CF BIT is not recorded. ●When [EXT LTC], [S VITC] or [S LTC] is selected in the F1 key, the VTR conforms to the external color frame bit.
F7	–––––	
F8	SETUP	Transfers the VTR to the TC/CHR SET UP menu screen.
F9	CONVERT*²	Transfers the VTR to the TC/CHR CONVERT menu screen.
F10	TCR For selecting time code read out mode.	**LTC:** LTC is read out all the time. **AUTO:** At low speed, VITC is read preferentially. When it is not read, then LTC is read. **VITC:** VITC is read out all the time. ●In either setting, when the time code cannot be read, values corrected by control signal are read out. (Interpolation mode is assumed and [INTRP] is displayed on the HOME menu.)
F11	SUPER For setting superimpose.	**TC.ST:** The time code and VTR operating mode are superimposed. **TC.ST.RT:** The time code, VTR operating mode and remaining tape time are superimposed. **TC.UB:** The time code and user's bit are superimposed. **TC.TC:** The time code is displayed in two steps. Both the original time code information and the time code information in the format to which it has been converted can be displayed at the same time. (Refer to the note on the next page.) **TC:** Only the time code is superimposed. **OFF:** Nothing is superimposed.
F12	SUPER ERR	**ON:** The warning displays are superimposed. **OFF:** The warning displays are not superimposed.
F13	CHR TYPE For selecting type of character to be superimosed.	**REVERSE:** Characters appear against a black background. **INTENSE:** Characters are displayed more intensely.

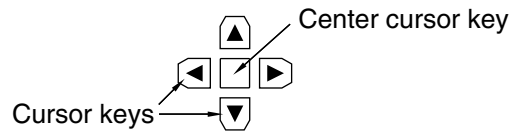*¹**This is displayed only when the 480/59.94i system format has been selected.**
*²**This is displayed only when the 1080/23psf, 1080/23p, 1080/24psf, 1080/24p, 1080/25psf, 1080/25p or 1080/50i system format has been selected.**

TC/CHR menu

☐ Changing the superimposing position
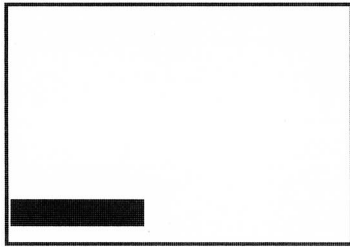
(1) Move the position using the cursor keys.

Center cursor key

Cursor keys

- When a cursor key is held down, the cursor will move more quickly.
- When the center cursor key is pressed, the superimposing returns to its initial position.

☐ Time code displays and VTR's operating modes

Display the time codes and VTR's operating modes as required.

Time code displays

CTL1: Control signal 1   **TCG:** Value generated by time code generator
CTL2: Control signal 2   **LUBG:** Value of LTC user bit generated
LTCR: LTC time code readout value **VUBG:** Value of VITC user bit generated
LUBR: LTC user bit readout value   **EXTC:** External time code value
VTCR: VITC time code readout value **EXUB:** External user bit value
VUBR: VITC user bit readout value

- The colon (":") between the seconds and frames denotes the readout mode of the time code reader.

Hours Minutes Seconds Frames

↓ ↓ ↓ ↓

☐☐:☐☐:☐☐:☐☐. ←**Blinking display: Time code cannot be read out.**

[ ]: **First field**
[.]: **Second field**

[:]: **Time code can be read out or TCG value is displayed.**
[ ]: **Time code cannot be read out.**

[.]: **DF mode ON**
[:]: **DF mode OFF**
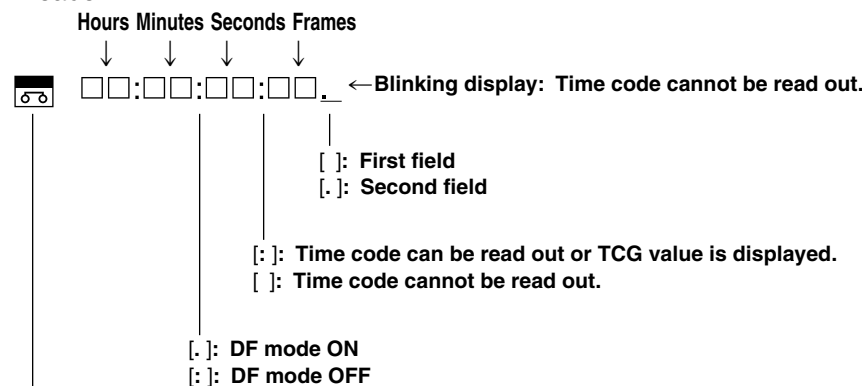
This indicates that the time code is the original time code which was recorded on the tape.
If the time code displayed is not accompanied by this cassette mark, it means that the time
code is the post-conversion time code. (This display will go off when setting the CTL or UB.)

⟨**Note**⟩

☐ 2-step display pattern with Time code setting

Upper 10:04:24:29
Lower 10:04:24:23

The converted time code is always displayed on the upper position, and the original or converted time code is displayed on the lower position by selecting the time code.
The following pattern below is displayed by selecting the F11 or F12 key on the TC/CHR CONVERT menu.

1080/23p (psf), 1080/24p (psf) formats	1080/25p (psf), 1080/50i formats	Other formats
TC with frame count of 30 / TC with frame count of 24	TC with frame count of 25 / TC with frame count of 24	Original TC with frame count of 30 / Original TC with frame count of 30
Or	Or	
TC with frame count of 30 / TC with frame count of 30	TC with frame count of 25 / TC with frame count of 25	

TC/CHR CONVERT menu

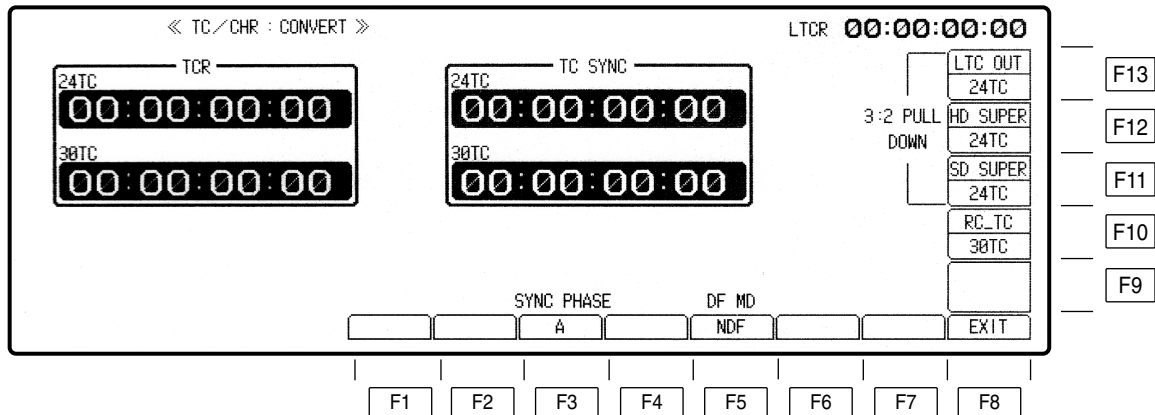## □ Concerning the TC SYNC value and sync phase settings

Since the TC is similarly converted when the 1080/23psf (p) or 1080/24psf (p) format is converted into the 1080/59i (480/59i) or 1080/60i format, it is necessary to input the time information (TC SYNC value) that will serve as the reference for conversion and the 3:2 pull-down sequence (sync phase) of the post-conversion output images.

□ Setting the TC SYNC value

Input the pre-conversion TC with the frame count of 24 (24TC) and the post-conversion TC with the frame count of 30 (30TC)/25 (25TC) to serve as the reference for conversion.

TC/CHR CONVERT menu

This menu is displayed by pressing the following keys: $\boxed{\text{TC/CHR}}$ → $\boxed{\text{F9}}$ When the center cursor key is pressed, the 24TC display is highlighted. To enter the time code, use the number keys and cursor keys (◄, ►) to set the time code, and then press the $\boxed{\text{ENT}}$ key. Move on to the 30TC/25TC value setting using the cursor keys (▲, ▼), and proceed in the same way to set and enter the time code.

```
≪ TC／CHR : CONVERT ≫                              LTCR  00:00:00:00
┌─ TCR ──────────────┐      ┌─ TC SYNC ──────────┐        ┌─LTC OUT─┐   ┌F13┐
│24TC│                │      │24TC│               │        │  24TC   │
│ 00:00:00:00         │      │ 00:00:00:00        │ 3:2 PULL│HD SUPER │   ┌F12┐
│30TC│                │      │30TC│               │  DOWN  │  24TC   │
│ 00:00:00:00         │      │ 00:00:00:00        │        │SD SUPER │   ┌F11┐
└────────────────────┘      └────────────────────┘        │  24TC   │
                                                           │ RC_TC   │   ┌F10┐
                            SYNC PHASE    DF MD             │  30TC   │
                                                           │         │   ┌F9┐
                              [   A   ]  [  NDF  ]          │  EXIT   │
```

| F1 | F2 | F3 | F4 | F5 | F6 | F7 | F8 |

Key	Key designation	Description
F1–F2	——	
F3	SYNC PHASE*	For setting the reference for the 3:2 conversion sequence. **A:** Frame A is used as the reference to convert the time code. **B:** Frame B is used as the reference to convert the time code. **C:** Frame C is used as the reference to convert the time code. **D:** Frame D is used as the reference to convert the time code.
F4	——	
F5	DF MD*	For selecting whether the 3:2 pull-down output from the 1080/23psf (p) or 1080/24psf (p) format after it is converted into the time code and output is to be in the drop frame or non-drop frame mode. **DF:** The output will be in the drop frame mode. **NDF:** The output will be in the non-drop frame mode.
F6–F7	——	
F8	EXIT	Returns the VTR to the TC/CHR menu screen.
F9	——	
F10	RC_TC*	For selecting the time code which is to be output to the remote connectors (RS-422, etc.). **24TC:** The original time code with the frame count of 24 is output. **30TC:** The post-conversion time code with the frame count of 30 is output.
F11	SD SUPER	For selecting the time code which is to be output to the SD monitor connector. **24TC:** The original time code with the frame count of 24 is output. **30TC/(25TC):** The post-conversion time code with the frame count of 30/(25) is output.
F12	HD SUPER	For selecting the time code which is to be output to the HD monitor connector. **24TC:** The original time code with the frame count of 24 is output. **30TC/(25TC):** The post-conversion time code with the frame count of 30/(25) is output.
F13	LTC OUT*	For selecting the time code which is to be output to the LTC output connector. **24TC:** The original time code with the frame count of 24 is output. **30TC:** The post-conversion time code with the frame count of 30 is output.

*This is not displayed with the 50i/25psf (p).

SYSTEM SET UP menu

This menu is displayed by pressing the following keys: $\boxed{\text{SET UP}} \rightarrow \boxed{\text{F4}}$
The system format and video output format currently set in the menu are displayed.

```
                        ≪ SET UP : SYSTEM ≫                              LTCR  00:00:00:00

                FORMAT          < VIDEO >   < HD SDI >    < HD MONI >   < SD SDI >
        VIDEO      AUDIO        ·1080PsF   ·1080/23.98PsF  ·1080/23.98PsF  ·525I              F13
                                ·1080P     ·1080/59I      ·1080/59.94I   ·525P
                                           ·720/59P                                         F12

                                ·59.94                                        PB AUTO      F11
             VIDEO OUTPUT       ·23.98                                          ON
        HD SDI MAIN             ·24                                                          F10
        HD SDI MONI             ·50
        SD SDI MAIN             ·25                                           A.REC.GRD
        SD SDI MONI                              SYSTEM                       CST.C.BIT      F9
        COMPOSITE               FREQ         VIDEO   AUDIO   HD SDI  HD MONI  SD SDI
                                                                             EXIT
```

F1	F2	F3	F4	F5	F6	F7	F8

SYSTEM SET UP menu **Refer to the setting flowchart and output status tables on pages 134 and 135.)**

Exactly Which operation is performed differs depending on whether the AJ-UDC3700P HD-SD format converter board, an optional accessory, has been installed.

Key	Key designation	Description
F1	FREQ* For selecting the SYSTEM frequency.	For selecting the system frequency. When the F1 key is pressed while holding down the F key, the frequency selection window is opened. The frequency can now be selected using the cursor keys. **59.94:** The 59.94 Hz system is selected. **23.98:** The 23.98 Hz system is selected. **24:** The 24 Hz system is selected. **50:** The 50 Hz system is selected. **25:** The 25 Hz system is selected. The selection is entered by pressing the ENT key while holding down the BS key. When "59.94" has been selected, the video recording format selection window is opened. When the 23.98, 24 or 25 setting has been selected, a window enabling PsF or P (Non-PsF) to be selected is opened. When the 23.98p or 24p (Non-PsF) format has been selected or when the 50 format has been selected after the 25p or 25PsF format has been entered, the system format is entered, and the window is closed.
F2	――	
F3	VIDEO For selecting the video recording format.	For selecting the video recording format. When the F3 key is pressed while holding down the F key, the video recording format selection window is opened. Use the cursor keys to select the format. One of the following menu items is selected when 59.94 has been selected as the system frequency setting. **1080I:** The 1080/59.94i recording format is selected. **525I:** The 525/59.94i recording format is selected. **720P:** The 720/59.94p recording format is selected. The selection is entered by pressing the ENT key while holding down the BS key. When "1080I" or "720P" has been selected, the audio recording format selection window is opened. When "525I" has been selected, the system format is entered as 525/59i, and the window is closed. Select either PsF or P when 23.98, 24 or 25 has been selected as the system frequency setting. To enter the selection, press the ENT key while holding down the BS key.
F4	AUDIO For selecting the audio recording format.	For selecting the audio recording format. When the F4 key is pressed while holding down the F key, the audio recording format selection window is opened. The format can now be selected using the cursor keys (but only when the "1080/59I" or "720/59P" format has been selected). **24bit/8CH:** The audio 8-channel format is selected. **20bit/4CH:** The audio 4-channel format is selected. The selection is entered by pressing the ENT key while holding down the BS key. When "720P" has been selected as the system format, the SD SDI MAIN output selection window is opened. When "1080I" has been selected as the system format, the system format is entered, and the selection window is closed.

*The FREQ setting is acknowledged only in the status where the cassette has been ejected.
If an attempt has been made to change this setting while a cassette is still inserted, the "EJECT CASSETTE TO CHANGE FORMAT" message appears to warn the user to eject the cassette first.

SYSTEM SET UP menu

Key	Key designation	Description
F5	HD SDI	For selecting the HD SDI MAIN output format. When the F5 key is pressed while holding down the F key, the HD SDI MAIN output format selection window is opened. The format can now be selected using the cursor keys (but only when "1080/23.98PsF" or "1080/24PsF" has been selected as the system format). **1080/23.98PsF (1080/24PsF):** The output is in the 1080/23.98PsF (1080/24PsF) format. **1080/59.94I (1080/60I):** The output is in the 1080/59.94i (1080/60i) format. **720/59.94P (720/60P):** The output is in the 1080/59.94p (720/60p) format. When "1080/23.98PsF (1080/24PsF)" has been selected, the HD SDI monitor output selection window is opened. When "1080/59I" or "720/59P" has been selected, the HD_SDI_MAIN output selection window is opened. When any other selection is made, it is entered by pressing the ENT key while holding down the BS key. At the same time, the window is closed
F6	HD MONI	For selecting the format in which the signals are to be output to the HD_SDI monitor. When the F6 key is pressed while holding down the F key, the HD_SDI monitor output selection window is opened. Use the cursor keys to select the output format. (This format can be selected only when the HD SDI main output has the same setting as the system format and 1080/23.98PsF or 1080/24PsF has been set.) **1080/23.98PsF (1080/24PsF):** The output is in the 1080/23.98PsF (1080/24PsF) format. **1080/59.94I (1080/60I):** The output is in the 1080/59.94i (1080/60i) format. When "1080/23.98PsF (1080/24PsF)" has been selected, the HD SDI MAIN output format selection window is opened. When any other selection is made, it is entered by pressing the ENT key while holding down the BS key. At the same time, the window is closed.

> By pressing the C key while any of the selection windows are open, it is possible to return the selection status to the previously set data. (Even when data has been entered by pressing the ENT key while the BS key is held down, operation will still be as described above while the related windows are open.)

SYSTEM SET UP menu

System format and video output status table
[When the AJ-UDC3700P HD-SD format converter board (optional accessory) has been installed]

System format front setting						HD SDI OUT	HD MONI OUT	SD SDI OUT	SD SDI MONI	CMPST
F1: FREQ	F3: VIDEO	F4: AUDIO	F5: HD SDI	F6: HD MONI	F7: SD SDI					
59.94	1080I	4ch	(1080/59.94i)	(1080/59.94i)	(525i)	1080/59.94i	1080/59.94i	525/59.94i	525/59.94i	NTSC
		8ch								
	720P	4ch	(720/59.94p)	(720/59.94p)	525i	720/59.94p	720/59.94p	525/59.94i	525/59.94i	NTSC
					525p			525/59.94p		
		8ch			525i			525/59.94i		
					525p			525/59.94p		
	525I	(4ch)	(1080/59.94i)	(1080/59.94i)	(525i)	1080/59.94i	1080/59.94i	525/59.94i		
23.98	(1080PsF)	(8ch)	1080/23.98psf	1080/23.98psf	525i	1080/23.98psf	1080/23.98psf	525/59.94i	525/59.94i	NTSC
					525p			525/59.94p	525/59.94i	
				1080/59.94i	(****)		1080/59.94i	No signals	No signals	No signals
			1080/59.94i	(1080/59.94i)	525i	1080/59.94i	1080/59.94i	525/59.94i	525/59.94i	NTSC
					525p			525/59.94p	525/59.94i	
			720/59.94p	720/59.94p	525i	720/59.94p	720/59.94p	525/59.94i	525/59.94i	NTSC
					525p			525/59.94p	525/59.94i	
	1080P	(8ch)	(1080/23.98p)	(1080/23.98p)	(525i)	1080/23.98p	1080/23.98p	525/59.94i	525/59.94i	
24	(1080PsF)	(8ch)	1080/24psf	1080/24psf	(****)	1080/24psf	1080/24psf	No signals	No signals	No signals
				1080/60i	(****)		1080/60i			
			1080/60i	(1080/60i)	(****)	1080/60i	1080/60i			
			720/60p	720/60p	(****)	720/60p	720/60p			
	1080P	(8ch)	1080/24p	1080/24p	(****)	1080/24p	1080/24p			
25	1080PsF	(8ch)	1080/25psf	1080/25psf	(625i)	1080/25psf	1080/25psf	625/50i	625/50i	PAL
	1080P	(8ch)	1080/25p	1080/25p	(625i)	1080/25p	1080/25p	625/50i	625/50i	PAL
50	(1080I)	(8ch)	(1080/50i)	(1080/50i)	(625i)	1080/50i	1080/50i	625/50i	625/50i	PAL

System format and video output status table
[When no AJ-UDC3700P HD-SD format converter board (optional accessory) has been installed]

System format front setting						HD SDI OUT	HD MONI OUT	SD SDI OUT	SD SDI MONI	CMPST
F1: FREQ	F3: VIDEO	F4: AUDIO	F5: HD SDI	F6: HD MONI	F7: SD SDI					
59.94	1080I	4ch	(1080/59.94i)	(1080/59.94i)	(****)	1080/59.94i	1080/59.94i	No signals	No signals	No signals
		8ch								
	720P	4ch	(720/59.94p)	(720/59.94p)	(****)	720/59.94p	720/59.94p			
		8ch								
	525I	(4ch)	(****)	(****)	525i	BLACK	BLACK	525/59.94i	525/59.94i	NTSC
23.98	(1080PsF)	(8ch)	(1080/23.98psf)	(1080/23.98psf)	(****)	1080/23.98psf	1080/23.98psf	No signals	No signals	No signals
	1080P	(8ch)	(1080/23.98p)	(1080/23.98p)	(****)	1080/23.98p	1080/23.98p			
24	(1080PsF)	(8ch)	(1080/24psf)	(1080/24psf)	(****)	1080/24psf	1080/24psf			
	1080P	(8ch)	(1080/24p)	(1080/24p)	(****)	1080/24p	1080/24p			
25	(1080PsF)	(8ch)	(1080/25psf)	(1080/25psf)	(****)	1080/25psf	1080/25psf	No signals	No signals	No signals
	1080P	(8ch)	(1080/25p)	(1080/25p)	(****)	1080/25p	1080/25p			
50	(1080I)	(8ch)	(1080/50i)	(1080/50i)	(****)	1080/50i	1080/50i			

<Note>
The settings in parentheses cannot be selected since they are established automatically.

TEST IC CARD menu

Preparations

When an error to be logged has occurred, this unit enables information on the date and time of the occurrence of the error to be recorded in addition to the TC information in the log. Initial registration of the date and time is required in order for this information to be recorded. Bear in mind that if the unit's power has been off for more than one week, it will be necessary to re-register the date and time.

How to register the date and time

When TEST and then the F13 key are pressed, a menu appears.
1. Press the center cursor key.
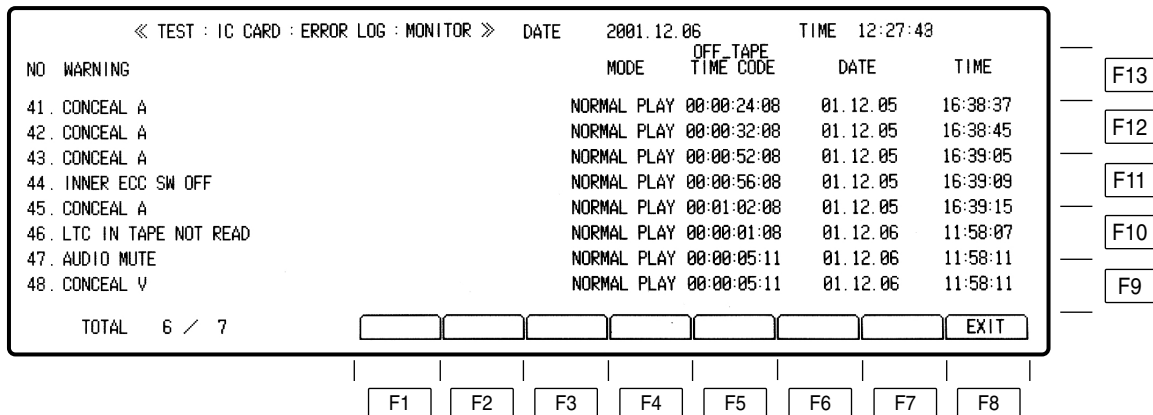   The year display at the top center of the front panel now appears as a white-on-black display.
2. Use the number keys to change the date and time.
   Use the cursor keys (◄, ►) to move the white-on-black display to the location where the information is to be changed, and change the information using the number keys.
3. After having changed and registered the date and time information, press the ENT key to enter it.

```
≪ TEST : IC CARD ≫              DATE    2001.12.06        TIME   12:28:08

                                                    FORMAT      F13

                                                                F12

                                                                F11

                                                                F10

                                                                 F9

            USER_FIL MULT_CUE  ERR_LOG
                                                        EXIT

        F1    F2    F3    F4    F5    F6    F7    F8
```
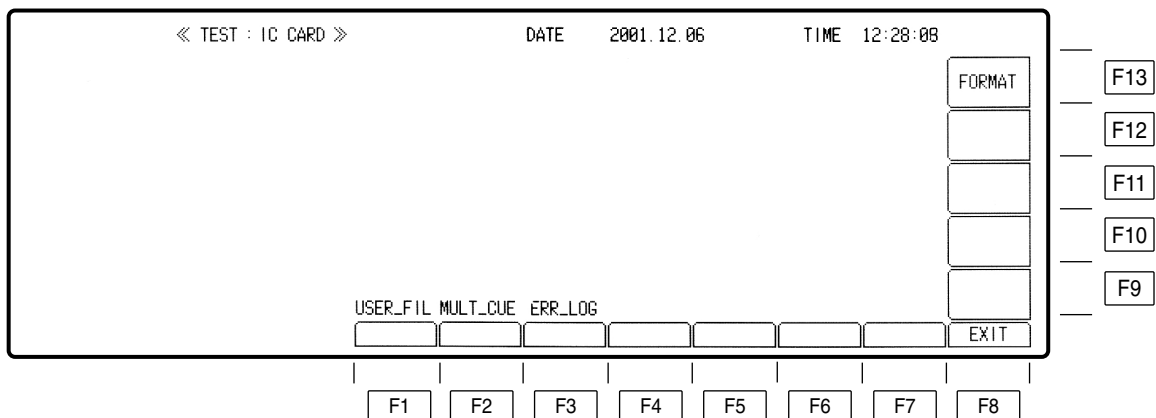
*TEST IC CARD ERROR_LOG MONITOR menu

```
    ≪ TEST : IC CARD : ERROR LOG : MONITOR ≫   DATE    2001.12.06        TIME   12:27:43
                                                         OFF_TAPE
NO  WARNING                                    MODE    TIME CODE     DATE        TIME          F13

41. CONCEAL A                        NORMAL PLAY  00:00:24:08   01.12.05    16:38:37
42. CONCEAL A                        NORMAL PLAY  00:00:32:08   01.12.05    16:38:45          F12
43. CONCEAL A                        NORMAL PLAY  00:00:52:08   01.12.05    16:39:05
44. INNER ECC SW OFF                 NORMAL PLAY  00:00:56:08   01.12.05    16:39:09          F11
45. CONCEAL A                        NORMAL PLAY  00:01:02:08   01.12.05    16:39:15
46. LTC IN TAPE NOT READ             NORMAL PLAY  00:00:01:08   01.12.06    11:58:07          F10
47. AUDIO MUTE                       NORMAL PLAY  00:00:05:11   01.12.06    11:58:11
48. CONCEAL V                        NORMAL PLAY  00:00:05:11   01.12.06    11:58:11           F9

    TOTAL   6 / 7                                                    EXIT

        F1    F2    F3    F4    F5    F6    F7    F8
```

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TEST IC CARD menu

Key	Key designation	Description
F1	USER_FIL	User file management takes place using IC card. When the F key is pressed, transfer is made to TEST IC CARD USER FILE menu. ●There is a load/save function for current (present deck status) and all registered files. ●When user file is forwarded to deck, whether SYS_H and SYS_C should be sent together can be selected.
F2	MULT_CUE	100 CUE_POINTS (MULTI_CUE) can be loaded/saved to IC card. When the F key is pressed, transfer is made to MULTICUE menu. ●Whether to send all at once or by page can be selected.
F3	ERR_LOG	Function available for memory of deck mode, time code, type and date/time when warning appears. When the F3 key is pressed, the VTR is transferred to the TEST IC CARD ERROR LOG menu. ●Function available for 50-step memory data. ●When memory buffer becomes full, there is a function for switching to erasure of old material and renewal of new warning. ●Function available for memory storage of this data on IC card. ●Function available to monitor IC card data.
F4–F7	——	
F8	EXIT	Returns the VTR to the TEST menu screen.
F9–F12	——	
F13	FORMAT	IC card is formatted. Please note that all data on the IC card is destroyed. When the F key is pressed together with C key and F13 (FORMAT) key, the IC card is formatted.

<Note>
Avoid installing an IC card formatted by this unit in the AJ-HD2000/2700 or any other model.
Conversely, avoid installing an IC card formatted by any other model in this unit.
The file structure used for these cards is different from one model to another, and this may give rise to problems in the VTR's operation.

TEST IC CARD ERROR LOG menu

This menu is displayed by pressing the following keys: $\boxed{\text{TEST}} \rightarrow \boxed{\text{F13}} \rightarrow \boxed{\text{F3}}$

Key	Key designation	Description
F1	DOWN_LD	Loads current memory data from VTR to IC card. In addition, the serial No., software version and operation time are saved. If there is no error log data in any file other than one containing the machine current data (a file saved in the IC card or current data of the VTR), "ERROR" appears, and the data cannot be downloaded. ●Executes when pressed together with F key.
F2	MONITOR	Displays the error log data saved in the IC card. After the machine current data (a file saved in the IC card or current data of the VTR) has been downloaded, the error log data currently stored in the VTR's memory is displayed. (Refer to ERROR_LOG MONITOR menu on page 18.) ●Executes when pressed together with F key.
F3	DELETE	ERROR LOG data saved in IC card is deleted. ●Executes when pressed together with F key.
F4	——	
F5	AUTOSTEP	When warning exceeds buffer capacity, selects whether to erase old material sequentially and renew. **ON:** Renews regularly. (The 50th step data is a latest data.) **OFF:** No renewal when capacity is full.
F6	——	
F7	REAL TIME	**ON:** The date and time data are entered along with the TC data in the error log. **OFF:** The date and time data are not entered in the error log. (Only the TC data is entered.)
F8	EXIT	Returns the VTR to the TEST IC CARD menu screen.
F9–F12	——	
F13	INITIAL	Deletes all the past error log data currently stored in the VTR's memory and all the error log data currently displayed. When downloading is attempted after executing INITIAL with no error log data, "ERROR" appears since there is no error log data, and data cannot be downloaded to the IC card while the machine current date can be downloaded.